# Montana Department of Fish, Wildlife & Parks

P.O. Box 1630
Miles City, MT 59301
August 21, 1995

Department of Environmental Quality
Environmental Quality Council
Montana Department of Fish, Wildlife and Parks
Resource Assessment Unit
Fisheries Division
Regional Information Officers
Montana State Library
Dawson County Public Library
Dawson County Commission
Jim Jenson
Janet Ellis
George Ochenski
Montana Wildlife Federation
Roy Hartman

Ladies and Gentlemen:

An Environmental Assessment (EA) has been prepared for a future private fish cultural facility in the Glendive area. The specific site has not yet been selected.

This document is available for review at all Department Regional Offices, Helena Headquarters, State Library, Dawson County Public Library and the Environmental Quality Council. Any questions or comments on the proposed project should be addressed to the undersigned by September 30, 1995.

Sincerely,

Phillip A Stewart

Phillip A Stewart
Miles City Regional Office
P.O. Box 1630
Miles City, MT 59301
(406) 232-4365

# Montana Department of Fish, Wildlife and Parks

## Fisheries Division

## Environmental Assessment

## Glendive Tilapia Culture Project

WW 95-157010

General Purpose: Montana statute (87-4-603) requires the Department to license all private fish culture facilities to protect waters of the State of Montana. Also, Montana statute (87-3-210) requires the importation of non-salmonid fish or eggs to be accompanied by a permit from the Department. The proposed development will require both types of permits. Both actions have potential environmental consequences. The purpose of this document is compliance with the Montana Environmental Policy Act.

I. Location of the Project

The exact location for the project has not yet been chosen. It will be in the City of Glendive or in rural Dawson County near Glendive.

II. Need for the Project

This project will be a private enterprise. If successful, it has the potential to generate private income as well as some state and local tax revenue.

III. Scope of the Project

Tilapia (Oreochromis niloticus) will be grown from imported fry to adult size in a heated indoor facility. Fry will be periodically imported from South Dakota and fed in six (6) 10,000 gallon tanks. If the chosen site is in Glendive, waste water will be run through a sand filter and then into the Glendive sewage system. If the site is in rural Dawson County waste water will drain to a zero discharge holding pond. Imported fry will be disease and parasite free. Steps will be taken to ensure that undesired non-native plant and animal

life are not accidentally introduced into Montana with fish shipments. The permits issued will require that fish produced be trucked live out of Montana and cannot be placed in any state water or other Montana fish cultural facility.

IV. Environmental Impact Checklist

See the attached checklist.

V. Explanation of Potential Impacts on Physical Environment

1. Aquatic Life and Habitats

Fish imported from other states have the potential to introduce diseases, parasites or non-native plants and animals that could affect resident fish populations. The broad stock for the imported Tilapia fry will be tested by the State of South Dakota for the salmonid viruses IPN, IHN, and VHS; the bacterium Renibacterium salmoninarum (causative agent for bacterial kidney disease) and Myxobolus cerebralis (causative agent for whirling disease). The brood stock will also be tested for any other disease organisms if the Department learns of their potential presence in the brood stock. The State of South Dakota will certify concerning the absence of these organisms in the Tilapia brood stock. South Dakota will also certify as to the absence of potentially damaging aquatic pest organisms that might be present in transportation water and not presently found in Montana. Escapement of Tilapia from the Glendive facility would be undesirable, although it is unlikely any fish of this

group could survive and become established in Montana waters. Tilapias, depending on species and thermal history, begin dying at approximately 50 F. None are able to survive at 40 F. Regardless, the system will be designed to prevent escape of fish be routing discharge water through a sand filter if discharge is to the city sewer system or to a zero discharge holding pond.

Tilapia produced at the facility will be shipped live. There will be no fish cleaning waste requiring disposal. The facility permit will require that shipped fish cannot be placed in any other Montana facility or in any Montana state water.

2. Water Quality

Quality of discharge water will be considerably modified from quality of inflow water. Both ammonia nitrogen and dissolved and particulate organic matter will be increased significantly. Other water quality parameters will also be modified. This will be of no significance to either the Glendive sewage system or to soil layers under the holding pond because water discharge volumes will be relatively small.

5&6. Aesthetics and Air Quality

As with all fish cultural facilities, there is some potential for fish smells to develop in the immediate vicinity.

8. Demands on Land, Water, Air and Energy

Approximately one half acre of land will be required for the operation. Amounts of water and energy for heating the water will not add significantly to the total use in the Glendive area.

VI. Potential Impacts on Human Environment

3. Local and State Tax Base and Tax Revenue

This project has the potential, if successful, to make a small addition to the tax base and tax revenue.

6. Quantity and Distribution of Community and Personal Income

There could be some positive effect on personal and community income if the project is successful.

8. Quantity and Distribution of Employment

This project could add one or two jobs in the Glendive community, again, depending on its success.

12. Demands for Energy

There will be a small increase in use of electricity and natural gas or propane to heat water and air.

VII. Reasonable Alternatives

There are no reasonable alternatives. If the project proponent is willing to meet the requirements of the facility and import permits, the Department is required to issue the permits.

VIII. Environmental Assessment Conclusion Section

1. An EIS in not required. This review clearly indicates that the effects associated with this project are not

significant because of the stipulations that will be written into the import and facility permits.

2. Level of public involvement. The distribution of this EA is shown on the front page. Advertisements notifying of the availability of the EA and offering public meetings will be run in the Helena Independent Record and the Glendive Ranger-Review.

3. Duration of the comment period. Comments on this action will be accepted through September 30, 1995.

4. Name, title, address and phone number of the person responsible for preparing this EA.

Phillip A. Stewart
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# ENVIRONMENTAL ASSESSMENT

Division/Bureau FISHERIES

Project or Application Glendive Tilapia Culture Project

Description of Project Tilapia (Oreochromis niloticus) will be reared for food at Glendive in an indoor facility. Fry will be periodically imported from South Dakot and raised in 6-10,000 gallon tanks. Depending on the exact site chosen for the facility, waste water will be run through a sand filter and then into the Glendive sewage system, or waste water will drain to a zero discharge holding pond. Imported fry will be disease and parasite tested. Only those free of disease and parasites will be imported. Steps will be taken to ensure that undesired non-native plant and animals life are not accidentally introduced with fish shipments.

## POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

| | Major | Moderate | Minor | None | Unknown | Comments on Attached Pa |
|---|---|---|---|---|---|---|
| 1. Terrestrial & aquatic life and habitats | | | | X | | X |
| 2. Water quality, quantity and distribution | | | X | | | X |
| 3. Geology & soil quality, stability and moisture | | | | X | | |
| 4. Vegetation cover, quantity and quality | | | | X | | |
| 5. Aesthetics | | | | | X | X |
| 6. Air quality | | | | | X | X |
| 7. Unique, endangered, fragile, or limited environmental resources | | | | X | | |
| 8. Demands on environmental resources of land, water, air and energy | | | X | | | X |
| 9. Historical and archaeological sites | | | | X | | |

## POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

| | Major | Moderate | Minor | None | Unknown | Comments on Attached Page |
|---|---|---|---|---|---|---|
| 1. Social structures and mores | | | | X | | |
| 2. Cultural uniqueness and diversity | | | | X | | |
| 3. Local and state tax base and tax revenue | | | | | X | X |
| 4. Agricultural or industrial production | | | | X | | |
| 5. Human health | | | | X | | |
| 6. Quantity and distribution of community and personal income | | | | | X | X |
| 7. Access to and quality of recreational and wilderness activities | | | | X | | |
| 8. Quantity and distribution of employment | | | | | X | X |
| 9. Distribution & density of population & housing | | | | X | | |
| 10. Demands for government services | | | | X | | |
| 11. Industrial and commercial activity | | | | X | | |
| 12. Demands for energy | | | X | | | X |
| 13. Locally adopted environmental plans and goals | | | | X | | |
| 14. Transportation networks and traffic flows | | | | X | | |

Other groups or agencies contacted or which may have overlapping jurisdiction Montana State Water Quality Bureau

Individuals or groups contributing to this EA Roy Hartman

Recommendation concerning preparation of EIS Not Required

PER prepared by Phil Stewart

Date 8/21/95